

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for modifying the curvature of a live cornea, comprising the steps of:

implanting a blank having a plurality of sections within said live cornea such that a shape of said blank alters a curvature of said live cornea; and

removing at least one of said sections of said blank from said live cornea, or implanting an additional section of said blank within said live cornea, to further change a curvature of said live cornea;

wherein said implanting step includes implanting a first section of the blank having an opening therein and implanting a second section of the blank within said opening of said first section.

2. (Original) A method for modifying the curvature of a live cornea according to claim 1, wherein said implanting step includes implanting a ring-shaped blank having a plurality of sections within said live cornea.

3. (Canceled)

4. (Original) A method for modifying the curvature of a live cornea according to claim 1, wherein said implanting step includes implanting a first section of the blank on the surface of the live cornea and implanting a second section of the blank on the surface of the live cornea, said first and second sections each forming about one half of said blank.

5. (Currently Amended) A method for modifying the curvature of a live cornea according to claim 1, further comprising the step of
ablating at least one of said plurality of ~~blanks~~ sections.

6. (Original) A method for modifying the curvature of a live cornea according to claim 1, wherein said removing at least one of said sections of said blank step includes removing at least one of said sections through a small incision in the cornea.

7. (Original) A method for correcting the refractive error in a cornea of an eye, comprising the steps of:

positioning an inlay on the surface of the cornea, the inlay having a first surface and a second surface, and the second surface being adjacent the surface of the cornea,

applying energy to the inlay to ablate a portion of the first surface of the inlay by an amount adapted to correct the refractive error in the eye,

removing the inlay from the surface of the cornea,

separating the cornea into a first corneal surface and a second corneal surface, the first corneal surface facing in a posterior direction of the eye and the second corneal surface facing in an anterior direction of the eye, and

positioning the inlay adjacent at least one of the first corneal surface and the second corneal surface.

8. (Original) A method according to claim 7, wherein

positioning an inlay on the surface of the cornea includes, positioning an inlay having a convex second surface.

9. (Currently Amended) A method according to claim 7, wherein

positioning an inlay on the surface of the cornea includes, positioning an inlay ~~have~~ having a flat second surface.

10. (Currently Amended) A method according to claim 7, wherein

positioning an inlay on the surface of the cornea includes, positioning an inlay ~~have~~ having a toric second surface.

11. (Currently Amended) A method according to claim 7, wherein
positioning an inlay on the surface of the cornea includes, positioning an inlay ~~have~~
having a concave second surface.
12. (Original) A method according to claim 7, further comprising the steps of
aiming a laser at the first surface of the inlay; and
activating the laser, thereby ablating a portion of the inlay.
13. (Original) A method according to claim 7, wherein
the step separating the cornea into a first corneal surface and a second corneal surface
includes, forming a flap in the surface of the cornea.
14. (Original) A method according to claim 13, further comprising the step of
moving the flap to expose the second corneal surface before the step of positioning the
inlay adjacent at least one of the first corneal surface and the second corneal surface.
15. (Original) A method according to claim 14, further comprising the step of
repositioning the flap so that the inlay is positioned between the first and second corneal
surfaces.
16. (Original) A method according to claim 7, further comprising the step of
rinsing the inlay before the step of positioning the inlay adjacent at least one of the first
corneal surface and the second corneal surface.
17. (Original) A method according to claim 7, further comprising the step of
reseparating the cornea into a first corneal surface and a second corneal surface, the first
corneal surface facing in a posterior direction of the eye and the second surface corneal facing in
an anterior surface of the eye,
exposing the first surface of the inlay, and

applying energy to the inlay to ablate another portion of the first surface of inlay to correct the refractive error in the eye.

18. (Original) A method according to claim 7, further comprising the step of
applying energy to at least one of the external surface of the cornea and a third corneal surface to ablate a portion of the cornea to correct the refractive error in the eye.

19. (Original) A method according to claim 18, further comprising the step of
forming a flap in the surface of the cornea,
moving the flap to expose the third surface of the cornea,
applying energy to the third surface of the cornea to ablate a portion of the third surface to correct the refractive error in the eye.

20. (Original) A method for correcting the refractive error in a cornea of an eye, comprising the steps of:
separating the cornea into a first corneal surface and a second corneal surface, the first corneal surface facing in a posterior direction of the eye and the second surface corneal facing in an anterior direction of the eye,
positioning an inlay adjacent at least one of the first corneal surface and the second corneal surface,
measuring the refractive error in the eye,
altering the refractive properties of the inlay, and
repositioning the inlay adjacent at least one of the first corneal surface and the second corneal surface.

21. (Original) A method according to claim 20, wherein
the separating step includes forming a flap in the surface of the cornea.

22. (Original) A method according to claim 21, further comprising the steps of
moving the flap to expose the second corneal surface and the first surface of the inlay,

aiming a laser at the first surface of the inlay, and
activating the laser, thereby ablating a portion of the first surface of inlay to correct the refractive error in the eye.

23. (Currently Amended) A method for correcting refractive error in a cornea of an eye, comprising the steps of:

separating the cornea into a first corneal surface and a second corneal surface, thereby forming a flap in the surface of the cornea, the first corneal surface facing in a posterior direction of the eye and the second surface corneal facing in an anterior direction of the eye,

moving the flap to expose the first and second corneal surfaces,

positioning an inlay having a first surface and a second surface adjacent at least one of the first corneal surface and the second corneal surface,

repositioning the flap so that the inlay is positioned between the first and second corneal surfaces,

moving the flap to expose the first surface of the inlay, and

applying energy to the first surface of the inlay to ablate a portion of the first surface of inlay to correct refractive error in the eye;

wherein positioning an inlay on the surface of the cornea includes, positioning an inlay having a convex second surface.

24. (Canceled)

25. (Currently Amended) A method ~~according to claim 23,~~ for correcting refractive error in a cornea of an eye, comprising the steps of:

separating the cornea into a first corneal surface and a second corneal surface, thereby forming a flap in the surface of the cornea, the first corneal surface facing in a posterior direction of the eye and the second surface corneal facing in an anterior direction of the eye,

moving the flap to expose the first and second corneal surfaces,

positioning an inlay having a first surface and a second surface adjacent at least one of the first corneal surface and the second corneal surface,

repositioning the flap so that the inlay is positioned between the first and second corneal surfaces,

moving the flap to expose the first surface of the inlay, and
applying energy to the first surface of the inlay to ablate a portion of the first surface of inlay to
correct refractive error in the eye;

wherein positioning an inlay on the surface of the cornea includes, positioning an inlay ~~have~~ having a flat second surface.

26. (Currently Amended) A method ~~according to claim 23,~~ for correcting refractive error in a
cornea of an eye, comprising the steps of:

separating the cornea into a first corneal surface and a second corneal surface, thereby
forming a flap in the surface of the cornea, the first corneal surface facing in a posterior direction
of the eye and the second surface corneal facing in an anterior direction of the eye,

moving the flap to expose the first and second corneal surfaces,

positioning an inlay having a first surface and a second surface adjacent at least one of
the first corneal surface and the second corneal surface,

repositioning the flap so that the inlay is positioned between the first and second corneal
surfaces,

moving the flap to expose the first surface of the inlay, and
applying energy to the first surface of the inlay to ablate a portion of the first surface of inlay to
correct refractive error in the eye;

wherein positioning an inlay on the surface of the cornea includes, positioning an inlay ~~have~~ having a toric second surface.

27. (Currently Amended) A method ~~according to claim 23,~~ for correcting refractive error in a
cornea of an eye, comprising the steps of:

separating the cornea into a first corneal surface and a second corneal surface, thereby
forming a flap in the surface of the cornea, the first corneal surface facing in a posterior direction
of the eye and the second surface corneal facing in an anterior direction of the eye,

moving the flap to expose the first and second corneal surfaces,

positioning an inlay having a first surface and a second surface adjacent at least one of the first corneal surface and the second corneal surface,

repositioning the flap so that the inlay is positioned between the first and second corneal surfaces,

moving the flap to expose the first surface of the inlay, and
applying energy to the first surface of the inlay to ablate a portion of the first surface of inlay to correct refractive error in the eye;

wherein positioning an inlay on the surface of the cornea includes, positioning an inlay ~~have~~ having a concave second surface.

28. (Currently Amended) A method of correcting refractive error in a cornea of an eye, comprising the steps of

separating the cornea into a first corneal surface and a second corneal surface, the first corneal surface facing in a posterior direction of the eye and the second corneal surface facing in an anterior direction of the eye,

allowing the cornea to at least partially heal,

positioning an inlay on ~~the~~ an exterior surface of the cornea, the inlay having a first surface and a second surface, the second surface being adjacent the exterior surface of the cornea,

applying energy to the inlay to ablate a portion of the first surface of the inlay by an amount adapted to correct the refractive error in the eye,

reseparating the cornea into the first and second corneal surfaces, and

positioning the inlay adjacent at least one of the first and second corneal surfaces.

29. (Currently Amended) A method for modifying the curvature of a live cornea, comprising the steps of:

implanting a first inlay having at least one section within said live cornea such that a shape of said blank alters the curvature of said live cornea; ~~and~~

implanting a second inlay within said live cornea adjacent said first inlay to further change the curvature of said live cornea; and

ablating at least one of said first and second inlays.

30. (Canceled)

31. (Previously Presented) A method for modifying the curvature of a live cornea according to claim 29, further comprising the steps of

separating the cornea into a first corneal surface and a second corneal surface, the first corneal surface facing in a posterior direction of the eye and the second corneal surface facing in an anterior direction of the eye, and

positioning the first inlay adjacent at least one of the first corneal surface and the second corneal surface.

32. (Previously Presented) A method for modifying the curvature of a live cornea according to claim 29, wherein

the implanting the second inlay step includes positioning the second inlay so that it overlies a portion of said first inlay.

33. (Previously Presented) A method for modifying the curvature of a live cornea according to claim 29, wherein

the implanting the second inlay step includes positioning the second inlay so that it is concentric with the first inlay.

34. (Previously Presented) A method for modifying the curvature of a live cornea according to claim 29, wherein

the implanting the second inlay step includes implanting said second inlay through a small incision in the cornea.

35. (Previously Presented) A method for correcting refractive error in a cornea of an eye, comprising the steps of:

separating the cornea into a first corneal surface and a second corneal surface, thereby forming a flap in the surface of the cornea, the first corneal surface facing in a posterior direction of the eye and the second surface corneal facing in an anterior direction of the eye,

moving the flap to expose the first and second corneal surfaces,

positioning a first inlay adjacent at least one of the first corneal surface and the second corneal surface,

repositioning the flap so that the inlay is positioned between the first and second corneal surfaces,

moving the flap to expose the first surface of the inlay, and

positioning a second inlay adjacent said first inlay to further correct refractive error in the eye.

36. (Previously Presented) A method for modifying the curvature of a live cornea according to claim 35, wherein

the implanting the second inlay step includes positioning the second inlay so that it overlies a portion of said first inlay.

37. (Previously Presented) A method for modifying the curvature of a live cornea according to claim 35, wherein

the implanting the second inlay step includes positioning the second inlay so that it is concentric with the first inlay.

38. (Canceled)

39. (Canceled)

40. (Canceled)

41. (Canceled).

42. (New) A method for modifying the curvature of a live cornea, comprising the steps of:

implanting a first inlay having at least one section within said live cornea such that a shape of said blank alters the curvature of said live cornea; and

implanting a second inlay within said live cornea adjacent said first inlay to further change the curvature of said live cornea;

wherein the implanting the second inlay step includes positioning the second inlay so that it overlies a portion of said first inlay.

43. (New) A method for modifying the curvature of a live cornea according to claim 42, further comprising the step of,

ablating at least one of said first and second inlays.

44. (New) A method for modifying the curvature of a live cornea according to claim 42, further comprising the steps of

separating the cornea into a first corneal surface and a second corneal surface, the first corneal surface facing in a posterior direction of the eye and the second corneal surface facing in an anterior direction of the eye, and

positioning the first inlay adjacent at least one of the first corneal surface and the second corneal surface.

45. (New) A method for modifying the curvature of a live cornea according to claim 42, wherein

the implanting the second inlay step includes positioning the second inlay so that it is concentric with the first inlay.

46. (New) A method for modifying the curvature of a live cornea according to claim 42, wherein
the implanting the second inlay step includes implanting said second inlay through a small
incision in the cornea.